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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,968	12/20/2000	Ahti Koski	Mo-6089/PS-1075	8668
157	7590	03/25/2004	EXAMINER	
BAYER POLYMERS LLC 100 BAYER ROAD PITTSBURGH, PA 15205			WACHTEL, ALEXIS A	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/742,968

Applicant(s)

KOSKI ET AL.

Examiner

Alexis Wachtel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12-20-2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Detailed Action***

***Claim Rejections - 35 USC § 112***

1. Claims 11-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 11, it is not clear what is meant by the phrase: A modular reaction system comprising a plurality of reactor assemblies comprising a substantially elongate tubular housing..." The Examiner assumes that the Applicant means to claim "A modular reaction system comprising a plurality of reactor assemblies, each reactor assembly comprising a substantially elongate tubing..."

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 614 866

A1 to Kunihiro et al.

Kunihiro et al teach a reactor assembly per claim 1 comprising a substantially elongate tubular housing, at least one reactant inlet, at least one reaction mixture outlet disposed above the at least one reactant inlet (Fig.8, item 6), and agitator (Fig.8, item 9) disposed in a region near the at least one reactant inlet and a perforated member

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(Fig.8, item 20; pp.14, lines 7-10) disposed in tubular housing between the agitator and the reaction mixture outlet.

Per claim 2:The reactor assembly defined in claim 1, wherein the perforated member is a disc (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 3:The reactor assembly defined in claim 1, wherein the perforated member comprises aperture (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 4:The reactor assembly defined in claim 1, wherein the perforated member comprises slots (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 5:The reactor assembly defined in claim 1, wherein the perforated member occupies substantially the entire cross section of the tubular housing substantially transverse to its longitudinal axis (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 6:The reactor assembly defined in claim 1, wherein the reactor assembly comprises a plurality of reactant inlets(Fig.8, item 6).

Per claim 7:The reactor assembly defined in claim 1, comprising a plurality of perforated members (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 8:The reactor assembly defined in claim 2, wherein the perforated member occupies substantially the entire cross section of the tubular housing substantially transfers to its longitudinal axis (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 9: The reactor assembly defined in claim 9, wherein the perforated member comprises apertures (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 11: A modular reaction system comprising a plurality of reactor assemblies, each reactor assembly comprising a substantially elongate tubular housing,

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at least one reactor inlet, at least one reaction mixture outlet disposed above the at least one reactant inlet, and agitator disposed in a region near the at least one reactant inlet and a perforated member disposed in tubular housing between the agitator and the reaction mixture outlet. Examiner notes that EP 0 614 866 A1 teaches a modular reactor (Fig. 8) to the extent that individual zones defined by baffle means (20) clearly constitute discrete reaction zones. These reactor zones are modular in the sense that baffle means (20) can be configured in any number of ways (pp.14, lines 7-10). The baffle means (perforated members) effectively function as a reactant inlets and outlets for each reaction zone defined by said baffle means.

Per claim 12: A modular reaction system according to Claim 11, wherein the perforated member is a disc (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 13: The reactor assembly defined in Claim 11, wherein the perforated member comprises apertures (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 14: The reactor assembly defined in Claim 11, wherein the perforated member comprises slots (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 15: The reactor assembly defined in Claim 11, wherein the perforated member occupies substantially the entire cross section of the tubular housing substantially transverse to its longitudinal axis (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 16: The reactor assembly defined in Claim 11, wherein the reactor assembly comprises a plurality of reactant inlets (Fig.8, item 6).

Per claim 17: The reactor assembly defined in Claim 11, comprising a plurality of perforated members (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 18: The reactor assembly defined in Claim 12, wherein the perforated member occupies substantially the entire cross section of the tubular housing substantially transfers to its longitudinal axis (Fig. 9(a), item 20A; pp.14, lines 7-10).

Per claim 19: The reactor assembly defined in Claim 18, wherein the perforated member comprises apertures (Fig. 9(a), item 20A; pp.14, lines 7-10).

***Prior Art of Record***

4. The prior art of record and not relied upon is considered pertinent to Applicant's disclosure. In addition, the following references are cited for disclosing various aspects of Applicant's invention:

US 3,556,734

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Wachtel whose telephone number is 571-272-1455. The examiner can normally be reached on 10:30am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenn Caldarola, can be reached at (571)-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Glenn Caldarola  
Supervisory Patent Examiner  
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